What is claimed is:

1. A ridge waveguide semiconductor laser diode comprising:

an n-type semiconductor layer;

a p-type semiconductor layer having a ridge forming a waveguide;

an active layer disposed between said n-type semiconductor layer and said p-type semiconductor layer;

a protective insulating layer partially covering said ridge so as to expose at least a portion of a top face of said ridge;

a p-side ohmic electrode in ohmic contact with said portion of said ridge;

a p-side pad electrode disposed so as to electrically connect to said p-side ohmic electrode; and

an intermediate layer is disposed between said p-side ohmic electrode and said p-side pad electrode so as to cover a portion of said p-side ohmic electrode including an area that covers said top face of said ridge.

2. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer includes diffusion prevention means for preventing diffusion of a low melting point metal.

3. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer is a buffer layer for adjusting adhesion.

4. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer further covers another portion of said p-side ohmic electrode that covers side faces of said ridge.

5. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer includes at least one of an oxide, a nitride, and a high melting point metal.

6. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer is an insulator.

7. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer is at least one selected from the group consisting of SiO_2, TiO_2, ZrO_2, AlN, SiN, GaN, AlGaN, InGaN and Pt.

8. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer is a single layer

structure.

9. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer includes a multilayer structure comprising at least two layers.

10. The ridge waveguide semiconductor laser diode according to claim 1, wherein said protective insulating layer comprises a first protective insulating layer and said ridge waveguide semiconductor laser diode further comprises a second protective insulating layer disposed on a portion of said first protective insulating layer, and wherein said intermediate layer and said second protective insulating layer have the same composition.

11. The ridge waveguide semiconductor laser diode according to claim 10, wherein a width and a length of said intermediate layer are substantially equal on both sides of said ridge.

12. The ridge waveguide semiconductor laser diode according to claim 1, further comprising a conductive joining material including a low melting point metal bonded to said p-side pad electrode in the vicinity of said ridge.

13. The ridge waveguide semiconductor laser diode according to claim 1, wherein said ridge waveguide semiconductor laser diode comprises an $In_xAl_yGa_{1-x-y}N$ semiconductor, where $0 \leq x$, $0 \leq y$, and $x + y \leq 1$.

14. The ridge waveguide semiconductor laser diode according to claim 1, wherein said intermediate layer is a buffer layer for adjusting adhesion and said intermediate layer includes diffusion prevention means for preventing diffusion of a low melting point metal.

15. A ridge waveguide semiconductor laser diode comprising:

an n-type semiconductor layer;

a p-type semiconductor layer having a ridge forming a waveguide;

an active layer disposed between said n-type semiconductor layer and said p-type semiconductor layer;

a protective insulating layer partially covering said ridge so as to expose at least a portion of a top face of said ridge;

a p-side ohmic electrode in ohmic contact with said portion of said ridge;

a p-side pad electrode disposed so as to electrically connect to said p-side ohmic electrode; and

an intermediate layer is disposed between said p-side ohmic electrode and said p-side pad electrode so as to cover a portion of said p-side ohmic electrode including an area that covers the top face of said ridge, wherein said intermediate layer includes a diffusion prevention means for preventing diffusion of a low melting point.

16. A ridge waveguide semiconductor laser diode comprising:

an n-type semiconductor layer;

a p-type semiconductor layer having a ridge forming a waveguide;

an active layer disposed between said n-type semiconductor layer and said p-type semiconductor layer;

a protective insulating layer partially covering said ridge so as to expose at least a portion of a top face of said ridge;

a p-side ohmic electrode in ohmic contact with said portion of said ridge;

a p-side pad electrode disposed so as to electrically connect to said p-side ohmic electrode; and

an intermediate layer is disposed between said p-side ohmic electrode and said p-side pad electrode so as to cover a portion of said p-side ohmic electrode including an area that covers the top face of said ridge and said intermediate layer is an

insulator.

17. The waveguide semiconductor laser diode according to claim 16, wherein said intermediate layer is at least one compound selected from the group consisting of SiO_2, TiO_2, ZrO_2, AlN, SiN, GaN, AlGaN and InGaN.

18. The ridge waveguide semiconductor laser diode according to claim 16, wherein said intermediate layer is a single layer structure.

19. The ridge waveguide semiconductor laser diode according to claim 16, wherein said intermediate layer includes a multilayer structure comprising at least two layers.

20. The ridge waveguide semiconductor laser diode according to claim 16, wherein said ridge waveguide semiconductor laser diode comprises an $In_xAl_yGa_{1-x-y}N$ semiconductor, where $0 \leq x$, $0 \leq y$, and $x + y \leq 1$.